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5. (Twice Amended) A method for producing an ultra high molecular weight polyethylene molded article having orientation of crystal planes in a direction parallel to a compression plane, comprising slightly crosslinking [the] an ultra high molecular weight polyethylene molded article by irradiating the article with a high energy ray and thereby introducing a very small amount of crosslinking points into molecular chains of the article, then heating the crosslinked ultra high molecular weight polyethylene molded article up to a compression deformable temperature, compression-deforming the article by compressing the article in a direction perpendicular to the compression plane so as to deform the article, and then cooling the article while keeping the article in a deformed state.

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6. (Amended) The method of Claim ³/₅, where the high energy ray is a radioactive ray and a dose of the irradiation is in the range of 0.01 to 5.0 MR.

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7. (Amended) The method of Claim ³/₅ or ⁴/₆, wherein the compression-deformable temperature is [a temperature] in [the] a range of 50°C lower than a melting [point] temperature of the crosslinked ultra high molecular weight polyethylene [minus 50°C] to 80°C higher than the melting [point plus 80°C] temperature.

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8. (Amended) The method of Claim ³/₅, ⁴/₆ or ⁷/₅ wherein a weight-average molecular weight of the ultra high molecular weight polyethylene before irradiation is in a range of 2 to 8 million.

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9. (Twice Amended) An ultra high molecular weight polyethylene molded article having orientation of crystal planes in a direction parallel to a compression plane, said article produced by slightly crosslinking [the] an ultra high molecular weight polyethylene [molded] article by irradiating the article with a high energy ray and thereby introducing a very small amount of crosslinking points into molecular chains of the article, then heating the crosslinked [ultra high molecular weight polyethylene molded] article up to a compression deformable temperature, compression-deforming the article by compressing the article in a direction perpendicular to the compression plane so as to deform the article, and then cooling and solidifying the article while keeping the article in a deformed state.

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10. (Amended) Artificial joint for implantation in a joint of an animal comprising an ultra high molecular weight polyethylene molded article having been crosslinked slightly and having been compression-deformed in a direction perpendicular to a compression plane, cooled and solidified in a compression-deformed state so as to have orientation of crystal planes in a direction parallel to [a] the compression plane[, wherein the molded article is crosslinked slightly].

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11. (Amended) Artificial joint for implantation in a joint of an animal comprising an ultra high molecular weight polyethylene molded article having been crosslinked slightly and having been compression-deformed in a direction perpendicular to a compression plane so as to have [having] orientation of crystal planes in a direction parallel to [a] the

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compression plane, wherein [the molded article is crosslinked slightly and] the melting [point]
temperature of the molded article is in a range of 135[°] to 155°C.

REMARKS

By the present amendment, claims 1, 3 and 5-11 have been amended to obviate the objections of the examiner thereto by further clarifying the concepts of the present invention. Entry of these amendments is respectfully requested.

In the Action, claims 1, 3 and 5-11 were rejected under the second paragraph of 35 USC § 112 as being indefinite. In particular, it was alleged in subparagraph (a) that the limitation relative to the compression plane of these claims was not clear. In addition, in subparagraph (b) of the same rejection, it was noted that the preamble of claim 1 apparently was inconsistent with the remainder of the claim regarding the "molded article" phrase. Reconsideration of these rejections in view of the above claim amendments and the following comments is requested.

In response to subparagraph (a) of the rejection, independent claims 1, 5 and 9-11 have been amended to provide greater definition for the recited compression plane by positively reciting what a compression plane is. Specifically, these claims now recite, among other things, that the article has been compression-deformed in a direction perpendicular to a compression